

# UPPER COLUMBIA – METHOW SPRING CHINOOK

## STOCK STATUS

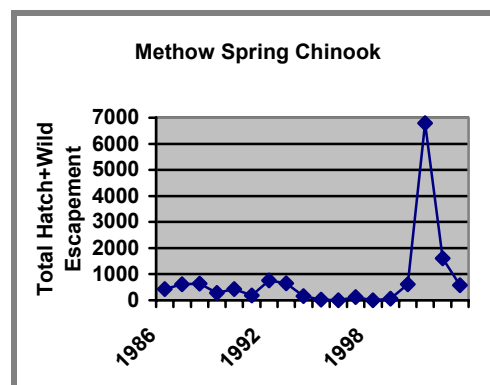
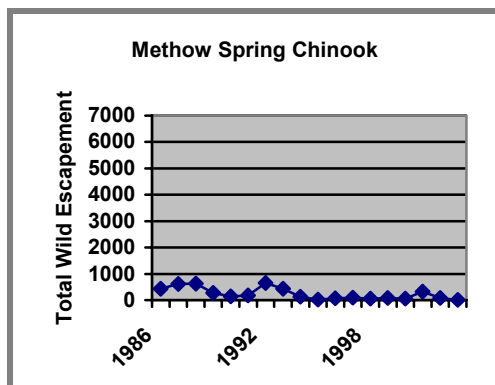
1992 STATUS  
**Depressed**

2002 STATUS  
**Critical**

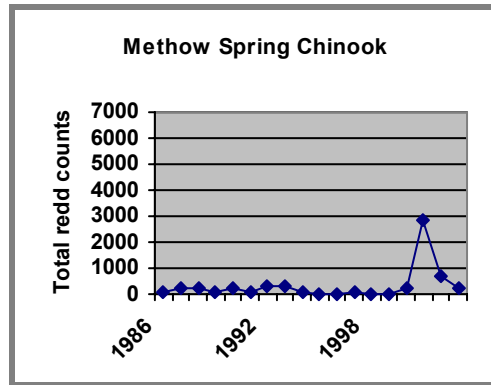
## STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS: Good

YEAR	TOTAL WILD ESCAPEMENT	TOTAL HATCH +WILD ESCAPEMENT	TOTAL REDD COUNT
1986	435	435	63
1987	613	613	256
1988	634	634	262
1989	280	280	110
1990	149	435	194
1991	183	183	74
1992	655	760	336
1993	439	646	290
1994	136	158	64
1995	27	27	9
1996	70	0	0
1997	96	127	56
1998	58	0	0
1999	79	59	17
2000	62	608	232
2001	333	6786	2828
2002	81	1610	722
2003	10	575	251



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Data are 1) total wild escapement estimates based on redd counts, including brood stock captures; 2) total hatchery plus wild escapement estimates based on redd counts; and 3) total redd counts from the Twisp River confluence to Ballard Camp Road. Redd counts from 1986-1990, 1993, and 1999 are based on less than 100% spawning surveys and are not comparable (Peter Hahn, WDFW, personal communication).

Stock status is rated **Critical** in 2002 because of **chronically low** escapements. Spawner numbers were so low from 1994 through 1999 that genetic damage to the stock may have occurred.

## STOCK DEFINITION

Methow spring Chinook were identified as a stock based on their distinct spawning distribution, early river entry timing (May through August) and early spawning timing.

**SPAWNING DISTRIBUTION:** Most spawning takes place in the mainstem Methow River from the confluence with the Twisp upstream to the confluence with the Lost River. Spawning is also observed in Early Winters, Gold, Lake and Wolf creeks.

**SPAWNING TIMING:** Spawning generally occurs from early August to mid-September.

**GENETIC ANALYSIS:** The genetic composition of spring Chinook spawning naturally in the Methow is unknown. Allozyme analysis of the Methow composite spring Chinook stock maintained at the WDFW Methow Hatchery (see below) shows the influence of Chewuch spring Chinook (Anne Marshall, WDFW, personal communication).

## STOCK ORIGIN

This is thought to be a **mixed** stock with **composite** production. Carson/Leavenworth spring Chinook from the Winthrop National Fish Hatchery and the Leavenworth National Fish Hatchery have been introduced into the Methow River and are thought to have hybridized with the native stock. The WDFW Methow Hatchery now maintains a Methow composite spring Chinook stock as part of a spring Chinook supplementation program for the Methow basin. The stock was created in 1997 using mainstem Methow spring Chinook spawners, Chewuch spring Chinook and possibly Twisp spring Chinook.